The Journal of Systems and Software

Volume 26, Number 1, July 1994

SPECIAL ISSUE ON ACHIEVING QUALITY IN SOFTWARE

Contents

Guest Editor's Corner
Achieving Quality in Software 1
Antonia Bertolino

Software Management Practice and Metrics in the European Community and Japan: Some Results of a Survey 5
Motoei Azuma and David Mole

The Role of Professionals in Small Italian Software Firms 19
M. Raffa and G. Zollo

Fault Generation Model and Mental Stress Effect Analysis 31
Tsuneo Furuyama, Yoshio Arai, and Kazuhiko Iio

Decision Making for Software Process Improvement: A Quantitative Approach 43
Christophe Debou, Jaroslav Lipták, and Herbert Schippers

State of the Art and Open Issues in Process-Centered Software Engineering Environments 53
Alfonso Fuggetta and Carlo Ghezzi

Experiences in Transferring a Software Process Improvement Methodology to Production Laboratories 61
Michael Halliday, Inderpal Bhandari, Jarir Chaar, and Ram Chillarege

The Quest for Reliability: A Case Study 69
Tor Stålhane and Kari J. Wedde

A Model-Based Framework for the Integration of Software Metrics 77
William M. Evanco and Robert Lacovara

Candidate Metrics for Object-Oriented Software within a Taxonomy Framework 87
Frenando Brito e Abreu and Rogério Carapuça

Volume 26, Number 2, August 1994

Contents

Editor's Corner
The Faking of Software Design 101
Robert L. Glass

Assessing Traditional Verification's Effectiveness on Safety-Critical Software Systems 103
Lon D. Gowen and James S. Collofello

A Uniform Approach to Software and Hardware Fault Tolerance 117
J. Wu, Y. Wang, and E. B. Fernandez

Modeling Concurrent Programs with Colored Petri Nets 129
Ryan Stansifer, Mike Beaven, and Dan C. Marinescu

A β-Distributed Stochastic Petri Net Model for Software Project Time/Cost Management 149
Gang-Soo Lee and Tadao Murata

A Distributed Load-Building Algorithm for Parallel Compilation of Files in a Software Application 167
Anna Hac and Raghavendra Rao Loka

A New Algorithm for *k* Mutual Exclusions in Distributed Systems 179
Naomi S. DeMent and Pradip K. Srimani

Biographies 193

Volume 26, Number 3, September 1994

Contents

Editor's Corner
Discipline and Creativity: An Odd Couple 195
Robert L. Glass

SPECIAL SECTION ON METRICS

A Critique of Three Metrics 197
M. Shepperd and D. C. Ince

An Information-Hiding Metric 211
Linda S. Rising and Frank W. Calliss

Software Metrics for the Microcode of Computer Systems 221
George Triantafyllos, Stamatis Vassiliadis, and Walid Kobrosly

SPECIAL SECTION ON DISTRIBUTED/MULTIPROCESSOR SYSTEMS

Integrated Modeling of Distributed Object-Oriented Systems 233
Doris L. Carver

Guidelines for Choosing Self-Scheduling Orders on Multiprocessors 245
Yu-Hur Chou, Cheng-Hsien Tung, and Reda Ammar

From Distributed Algorithms to OCCAM Programs by Successive Refinements 257
Valmir C. Barbosa, Lúcia Maria de A. Drummond, and Astrid Luise H. Hellmuth

A Contribution to the Problem of Avoiding Congestion in Multistage Networks in the Presence of Unbalanced Traffic 273
A. Pombortsis and I. Vlahavas

Simulation Study of a System with Two Processors Linked in Tandem 285
Helen D. Karatza

Biographies 293

Volume Contents